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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/075,673
Filing Date	February 13, 2002
First Named Inventor	J. Guy Breitenbucher et al.
Group Art Unit	1619
Examiner Name	
Attorney Docket Number	ORT-1590

M.Agaire		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
		Include name of the author (in CAPITOL LETTERS), title of the article (when appropriate), title of the item	
		(book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s),	T ²
Initials*	No.1	publisher, city and/or country where published	•
7/	7	ALLEN, E.M. et al. "Reversible Cathepsin S (CATS) Inhibitors Block Invariant Chain Degradation Both In Vitro and In Vivo"	
ライー		Inflammation Research (2001) Sup 3, Vol. 50, p S159 abstr. 10/04	
		BROMME, D. et al.; "Peptidyl vinyl sulphones: a new class of potent and selective cysteine protease inhibitors"; Biochem. J.	
		(1996) 315:85-89	
		CHAPMAN, H.A. et al.; "Emerging Roles For Cysteine Proteases in Human Biology"; Annu. Rev. Physiol. (1997) 59:63-88	<u> </u>
		CHAPMAN, H.A. "Endosomal Proteolysis and MHC Class II Function"; Curr. Opin. Immunol. (1998) 10:93-102	
		HONEY, K. et al.; "Role of Lysosomal Cysteine Proteinases in Antigen Presentation to CD4 T Cells"; Inflammation Research (2001) Sup.3, Vol. 50, pS159 abstr. 10/01	
		LI, W. et al.; ""Tissue Specific Expression of Cathepsins and Antigen Presentation"; Inflammation Research (2001) Sup 3, Vol. 50 p S159 abstr. 10/02	
		MAGILL, C. et al.; "Cysteine Proteases in Antigen Presentation and Models of Inflammation"; Inflammation Research (2001) Sup 3, Vol 50, p S159, abstr. 10/03	
·		MAURER, D. et al.; "Fce Receptor I on Dendritic Cells Delivers IgE-Bound Multivalent Antigens into a Cathepsin S- Dependent Pathway of MHC Class II Presentation" J. Immunol. (1998) 161:2731-2739	
	$\neg \neg$	MCGRATH, M.E. et al.: "Crystal structure of human cathepsin S"; Protein Science (1998) 7:1294-1302	
		NAKAGAWA, T. Y. et al.; *Impaired Invariant Chain Degradation and Antigen Presentation and Diminished Collagen-Induced	
		Arthritis in Cathepsin S Null Mice*, Immunity (1999) 10:207-217	
		NAKAGAWA, T.Y. et al.: "The role of lysosomal proteinases in MHC class II-mediated antigen processing and presentation" Immunological Rev. (1999) 172:121-129	
		NERENBERG, J. B. et al.; "Design and Synthesis of N-Alkylated Saccharins as Selective a-1A Adrenergic Receptor Antagonists", Bioorg. Med. Chem. Lett. (1998) 8:2467-2472	
		PALMER, J. T. et al.; "Vinyl Sulfones as Mechanism-Based Cysteine Protease Inhibitors"; J. Med. Chem. (1995) 38(17):3193-3196	
		PODOLIN, P.L. et al.; "Inhibition of Cathepsin S Blocks Invariant Chain Processing and Antigen-Induced Proliferation In Vitro and Reduces the Severity of Collagen-Induced, Arthritis In Vivo*; Inflammation Research (2001) Sup 3, Vol. 50, p S 159 abstr. 10/05	
		RIESE, R. J. et al.; "Cathepsin S Activity Regulates Antigen Presentation and Immunity"; J. Clin Invest. (1998) 101 (11):2351-2363	
		RIESE, R. J. et al.; "Cathepsins and Compartmentalization in Antigen Presentation"; Curr. Opin. Immunol. (2000) 12:107-113	
		SHI, Guo-Ping, et al.; "Cathepsin S Required for Normal MHC Class II Peptide Loading and Germinal Center Development"; Immunity (1999) 10:197-208	
		SPERO, D. et al.; "Design and Synthesis of Novel Cathepsin S Inhibitors"; Inflammation Research (2001) Sup. 3, Vol. 50, p S206, abstr. 079	
		VILLADANGOS, J. A. et al.; "Degradation of Mouse Invariant Chain: Roles of Cathepsins S and D and the Influence of Major Histocompatibility Complex Polymorphism" J. Exp. Med. (1997) 186(4):549-560	
		VILLADANGOS, J. A. et al.; "Proteases Involved in MHC Class II Antigen Presentation" Immunological Rev. (1999)172:109- 120	
SV	ノ	VILLADANGOS, J.A. et al.; "Proteolysis in MHC Class II Antigen Presentation: Who's in Charge?"; Immunity (2000) 12:233-239	
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U.S. PATENT DOCUMENTS							
Examiner Initials	Cite	U.S. Patent Do	Kind Code ² (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document mm-dd-yyyy	Pages, Columns, Lines, where relevant passages or relevant figures appear	
50		6,287,840	B1	Palmer, J. T. et al.	09-11-2001		
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FOREIGN PATENT DOCUMENTS Foreign Patent Document Date of Publication Pages, Columns, Lines, of Cited Document where relevant Name of Patentee or Examiner Cite passages or relevant mm-dd-yyyy Applicant of Cited Document Initials KindCode⁵ figures appear Office³ Number⁴ No. wo 95/23222 **A1** Khepri Pharmaceuticals, Inc. 08-31-1995 wo 96/30353 Δ1 Arris Pharmaceutical Corporation 10-03-1996 wo 97/40066 Mass. Institute of Technology -10-30-1997 Brigham & Women's Hospital wo 99/58153 Α1 Brigham & Women's Hospital 11-18-1999

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/075,673				
Filing Date	February 13, 2002				
First Named Inventor	J. Guy Breitenbucher				
Group Art Unit	1617				
Examiner Name	Shengjun Wang				
Attorney Docket Number	ORT-1590				

-	U.S. PATENT DOCUMENTS					
Examiner	Cite	U.S. Patent Document Kind Code		Name of Patentee or Applicant	Date of Publication of Cited Document	Pages, Columns, Lines, where relevant passages or
Initials	No.1	Number (i	f known)	of Cited Document .	mm-dd-yyyy	relevant figures appear
51		5,830,850	Α	Gelb et al.	11-03-1998	
52~		6,214,813	B1	Zhang et al.	04-10-2001	
5 ~		2002/0040020	A1	Breitenbucher et al.	04-04-2002	
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FOREIGN PATENT DOCUMENTS Foreign Patent Document Date of Publication Pages, Columns, Lines, where levant passages or relevant figures appear of Cited Document Name of Patentee mm-dd-yyyy Office³ Number⁴ KindCode⁸ initials No.1 Applicant of Cited Document EP 0747049 **A1** Eli Lilly and 12-11-1996 Company

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Sheet 2 of 2

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February 13, 2002
J. Guy Breitenbucher
1617
Shengjun Wang
ORT-1590

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Examiner's Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	L ₅		
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U.S. PATENT DOCUMENTS						
Examiner Initiats	Cite No. ¹	U.S. Patent Document Kind Code* Number (if known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document mm-dd-yyyy	Pages, Columns, Lines, where relevant passages or relevant figures appear
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1		wo	96/30353	A1	Arris Pharmaceutical Corporation	10-03-1988		
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I Applications Alicander Under the Paperwork Reduction Act of 1995 10/075,673

Application Number Filing Date February 13, 2002 INFORMATION DISCLOSURE First Named Inventor J. Guy Breitenbucher Group Art Unit 1617 STATEMENT BY APPLICANT Examiner Name Shengjun Wang

Attorney Docket Number

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	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner's Intilals*	Cite No.'	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catatog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²			
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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR I PATENT IN REEXAMINATION		ATTORNEY DOCKET NO.
				EXAMINER
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				20071117

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Commissioner for Patents

Attached is signed 1449s.

SHENGJUN WANG PRIMARY EXAMINES

Shengjun Wang